

WHAT IS CLAIMED IS:

1. A welded wire lath comprising:

5 a) a plurality of generally parallel transverse wires lying primarily in a first plane and each departing from the first plane in a plurality of spaced-apart bent sections, each bent section defined between first and second shoulder regions;

10 b) a plurality of generally parallel first longitudinal wires lying generally in the first plane and intersecting with and attached to the transverse wires, the first longitudinal wires including, for each of the plurality of bent sections, a longitudinal wire attached to each of the transverse wires in at least one of the shoulder regions corresponding to the bent section; and,

15 20 c) a plurality of generally parallel second longitudinal wires lying generally in a second plane parallel to and spaced apart from the first plane, the second longitudinal wires attached to the bent sections of the transverse wires.

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2. The wire lath of claim 1 comprising a barrier layer disposed between the first and second planes.

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3. The wire lath of claim 2 wherein an angle θ
between the portions of the transverse wires
extending between one of the second
longitudinal wires on one of the bent
5 sections and the immediately adjacent first
longitudinal wire attached to the shoulder
portion corresponding to the bent section and
a normal to the first plane is 30 degrees or
less.

10 4. The wire lath of claim 2 wherein the barrier
layer is perforated by apertures and the bent
sections pass through the apertures.

15 5. The wire lath of claim 4 wherein the
apertures are elongated and extend in a
transverse direction.

20 6. The wire lath of claim 1 wherein at least
some of the first longitudinal wires are non-
round in cross section.

25 7. The wire lath of claim 6 wherein at least
some of the first longitudinal wires are
flattened and are oriented to lie generally
in the first plane.

8. A welded wire lath comprising:

30 a) a plurality of generally parallel
transverse wires lying primarily in a
first plane and each departing from the

first plane in a plurality of spaced-apart bent sections, each bent section defined between first and second shoulder regions;

5 b) a plurality of generally parallel first longitudinal wires lying generally in the first plane and intersecting with and attached to the transverse wires, the first longitudinal wires including,
10 for each of the plurality of bent sections, a pair of longitudinal wires, one of the pair of longitudinal wires attached to each of the transverse wires in a first one of the shoulder regions
15 corresponding to the bent section and another one of the pair of longitudinal wires attached to each of the transverse wires in a second one of the shoulder regions corresponding to the bent
20 section; and,

25 c) a plurality of generally parallel second longitudinal wires lying generally in a second plane parallel to and spaced apart from the first plane, the second longitudinal wires attached to the bent sections of the transverse wires.

9. The wire lath of claim 8 wherein the bent sections are generally V-shaped.

10. The wire lath of claim 9 wherein the second longitudinal wires are attached to the bent sections at points of the V-shaped bent sections.

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11. The wire lath of claim 9 wherein the bent sections have a height h and the pair of first longitudinal wires are spaced apart by a distance w with $h \geq w$.

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12. The wire lath of claim 8 wherein the bent sections are generally U-shaped.

13. The wire lath of claim 8 wherein the bent sections have a height h and the pair of first longitudinal wires are spaced apart by a distance w with $h \geq w$.

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14. The wire lath of claim 13 wherein angles θ between the portions of the transverse wires extending between one of the second longitudinal wires on one of the bent sections and each of the pair of first longitudinal wires attached to the shoulder regions corresponding to the bent section and a normal to the first plane are each 30 degrees or less.

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15. The wire lath of claim 8 wherein at least some of the first longitudinal wires are non-round in cross section.

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16. The wire lath of claim 15 wherein at least some of the first longitudinal wires are flattened and are oriented to lie generally in the first plane.

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17. The wire lath of claim 8 comprising a barrier layer disposed between the first and second planes.

10 18. The wire lath of claim 17 wherein the bent sections are generally V-shaped.

15 19. The wire lath of claim 18 wherein the second longitudinal wires are attached to the bent sections at points of the V-shaped bent sections.

20 20. The wire lath of claim 19 wherein the bent sections have a height h and the pair of first longitudinal wires are spaced apart by a distance w with $h \geq w$.

25 21. The wire lath of claim 17 wherein the bent sections are generally U-shaped.

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22. The wire lath of claim 17 wherein the bent sections have a height h and the pair of first longitudinal wires are spaced apart by a distance w with $h \geq w$.

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23. The wire lath of claim 8 wherein angles θ
between the portions of the transverse wires
extending between one of the second
longitudinal wires on one of the bent
5 sections and each of the pair of first
longitudinal wires attached to the shoulder
regions corresponding to the bent section and
a normal to the first plane are each 30
degrees or less.
- 10 24. The wire lath of claim 17 wherein the barrier
layer is perforated by apertures and the bent
sections pass through the apertures.
- 15 25. The wire lath of claim 24 wherein the
apertures are elongated and extend in a
transverse direction.
- 20 26. The wire lath of claim 17 wherein the barrier
layer comprises an absorbent paper.
- 25 27. The wire lath of claim 17 wherein the barrier
layer comprises a series of perforations
which do not coincide with intersections of
the longitudinal wires and transverse wires.
28. The wire lath of claim 27 wherein the
perforations are round in shape.
- 30 29. The wire lath of claim 27 wherein the
perforations are elongated.

30. The wire lath of claim 27 wherein the perforations comprise slits.

5 31. The wire lath of claim 17 comprising a backing layer adhesively affixed to the barrier layer, wherein the second longitudinal wires extend between the backing layer and the barrier layer.

10 32. The wire lath of claim 8 wherein at least some of the first longitudinal wires are non-round in cross section.

15 33. The wire lath of claim 32 wherein at least some of the first longitudinal wires are flattened and are oriented to lie generally in the first plane.

20 34. The wire lath of claim 33 wherein at least some of the first longitudinal wires are flattened and curved about a longitudinal axis wherein faces of the at least some first longitudinal wires which face away from the second plane are concave.

25 35. The wire lath of claim 17 comprising a plurality of spaced apart furring spacers on the transverse wires.

30 36. The wire lath of claim 8 wherein the bent sections are spaced apart along each of the

transverse wires at intervals of
approximately 3 inches.

37. A building structure comprising:

- 5 a) a plurality of generally parallel
 framing members;
- b) a wire lath attached to the framing
 members, the wire lath comprising:
 - 10 i) a plurality of generally parallel
 transverse wires lying primarily in
 a first plane and each departing
 from the first plane in a plurality
 of spaced-apart bent sections, each
 bent section defined between first
15 and second shoulder regions;
 - ii) a plurality of generally parallel
 first longitudinal wires lying
 generally in the first plane and
 intersecting with and attached to
20 the transverse wires, the first
 longitudinal wires including, for
 each of the plurality of bent
 sections, a pair of longitudinal
 wires, one of the pair of
25 longitudinal wires attached to each
 of the transverse wires in a first
 one of the shoulder regions
 corresponding to the bent section
 and another one of the pair of
30 longitudinal wires attached to each
 of the transverse wires in a second

one of the shoulder regions
corresponding to the bent section;
and,

5 iii) a plurality of generally
parallel second longitudinal
wires lying generally in a
second plane parallel to and
spaced apart from the first
plane, the second longitudinal
10 wires attached to the bent
sections of the transverse
wires;

the wire lath oriented with the second
longitudinal wires facing the framing
15 members, each of the second longitudinal
wires crossing a plurality of the framing
members, and the first longitudinal wires
spaced apart from faces of the framing
members.

20 38. The building structure of claim 37 wherein
the framing members and wire lath are on an
underside of a part of a building.

25 39. The building structure of claim 38 comprising
a barrier layer disposed between the first
and second longitudinal wires.

30 40. The building structure of claim 39 comprising
a layer of solidified stucco encasing the
first longitudinal wires and at least

substantially filling a space between the barrier layer and the first longitudinal wires.

5 41. The building structure of claim 40 wherein the barrier layer comprises perforations and the solidified stucco extends through the perforations.

10 42. The building structure of claim 37 wherein the first longitudinal wires are flattened and are oriented with a wide dimension substantially parallel to faces of the framing members.

15 43. The building structure of claim 37 wherein the framing members are spaced apart by distances in excess of 12 inches and the wire lath is substantially unsupported in its
20 portions between the framing members.